

As-Built Plan Requirements

The Mashantucket Pequot Tribal Nation's Planning Department has provided this document as a guide for documenting as-built information. This list is only a guide and is not all inclusive of the data to be included in as-built plans. Additional information may be required at the direction of the engineer, project manager or owner, at the contractor's expense.

1. Utilities

General Notes:

For all new utilities including drainage, as-built data shall include the size and material of the conduits/pipes and in the case of multiple conduits/pipes, the number of each. Take photographs at major utility conflicts/crossings; number pictures same as field shot numbers.

Whenever existing utilities or drainage structures, conduits or pipes are encountered, whether in use or abandoned, provide as-built information as noted below.

- a. Electric / communications (to be on separate layers)
 - Conduits
 - Duct banks – Survey top of concrete along centerline, but drawn to actual configuration (width with depth noted). Shots to be taken every 20 linear feet or change in elevation or direction.
 - Manholes – Survey center of top section for round and note diameter or for square, four corners and center of top of frame.
 - Lighting and secondary electrical – Survey conduits every 20 ft and at change in elevation or direction.
 - Low voltage controls and conduit – To be surveyed same as lighting with description.
 - Structures – Survey center of top for round and note diameter or for square, four corners and center of top of frame. Locate all electrical equipment, (transformers, switch gears, hand holds, etc.)
 - Grounding - Survey grounding system.
 - Lighting – Survey all site lighting including hand holds etc.
- b. Water Service
 - Pipe – Shots to be taken every 20 ft. along center top of pipe, and at change in elevation or direction.
 - Couplings – Survey center top of coupling; indicate bend radius.
 - Valves, Hydrants, Blow offs, Corporations – Survey center top of item and include description with size, type, material, etc.

- Note: A separate layer will need to be created for the SWF (South Well Field) water main.
 - Thrust Blocks – Survey location and size.
 - Heat Tracing – Survey and note type and size.
- c. Sewer Line
- Sewer Manholes – Survey top of frame elevation and elevation of all inverts. Note flow direction.
 - Gravity Sewer Pipe – Survey all inverts. Identify size and type by layer per MPTN Standards. Survey shots along pipe not required if installed by pipe laser.
 - Sewer Force Mains - Survey at every change, bend or major elevation change. Survey not required at straight joints.
 - Other structures – Survey center of top section for round and note diameter or for square, four corners and center of top. Survey base of structure, inverts, access hatches, etc.
- d. Gas Service
- Gas Lines – Survey at every change, bend and weld joint. Identify size and type by layer per MPTN Standards.
 - Couplings/valves – Survey center top of coupling – indicate bend radius
 - Meters and exterior gas related equipment – Survey location and note type, etc. with text
- e. Drainage
- Catch Basins/Drainage Manholes – Survey top of frame elevation at gutter line at center of frame and elevation of all inverts. Note type (CL, C, double, etc.).
 - Pipe – Survey all inverts. Identify size and type by layer per MPTN Standards. Survey shots along pipe not required if installed with pipe laser
 - Sediment Control Structures - Survey four corners and center of top of structure. Survey base of structure, inverts, access hatch, etc. Survey plunge pools, retention ponds and provide contours.
- f. Irrigation
- Survey all sprinkler heads/ handholds and irrigation pipes.

2. Concrete

- a. Buildings and Structures – Survey footprint of footings with shots at top of corners and at every direction and elevation change. Survey corner of walls after building completion.
- b. Bridges / Retaining walls - Survey top corner of footings, top of walls, and abutments, and at elevation and direction changes. Identify geo-grid with text, hatch the area.
- c. Concrete ramps, loading docks, sidewalks, steps, patio areas, and structures – Survey at a frequency to adequately depict all items.
- d. Snowmelt – Survey limits and hatch the area. Take photographs of area.
- e. Columns – Survey center and extents of each column footing.

3. Planimetrics
 - a. Roads – Survey elevation and of edge of road, top face of curbing, pavement markings, etc.
 - b. Landscaping – Survey planting beds, edge of tree line, etc.
 - c. Final Grading – Provide contours at 2 foot intervals. One foot interval contours will not be accepted.
4. Abandoned Utilities – Identify on drawing with text. Show cut offs.
5. Removed Utilities- Change to “Removed” layer, and note on plan as “Removed”.